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# RTD UPDATES: Farm Machinery

Data updates for employees and colleagues of the Resources and Technology Division

Resources and Technology Division  
Economic Research Service  
U.S. Department of Agriculture

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## Farm Machinery Purchases Down From a Year Ago

Sales of tractors, combines, and other farm machinery declined over the first 8 months of 1992, compared to the corresponding period in 1991. Sales of farm tractors totaled 58,100 units in 1991. Through August 1992, sales were 34,366 units, down from 40,594 units in August 1991. Combine sales were down 39 percent from August 1991 to August 1992. Sales were down nearly every month from the corresponding months of the past 2 years.

This issue of **RTD UPDATES** summarizes several factors affecting the demand for farm machinery, including farm income, debt, assets, cash receipts, and the interest rate. Farm income, assets, and cash receipts are usually positively correlated; as these indicators rise, so do sales of farm machinery. Debt and the interest rate are usually negatively correlated; as these indicators fall, farm machinery sales rise. The current low sales may be due to the effect of pessimistic expectations about future commodity prices and farm incomes.

Exports of farm machinery rose January-July 1992, compared with the corresponding period in 1991. Imports fell over the same period. After decreasing by \$186 million from 1990 to 1991, total exports increased in the first 7 months by \$144 million. Imports declined \$514 million from 1990 to 1991 and continued declining through July 1992 by another \$21 million.

Farm machinery statistics are compiled twice a year for **Agricultural Resources, Inputs Situation and Outlook Report**. These reports are published in February and October by the Economic Research Service, U.S. Department of Agriculture.

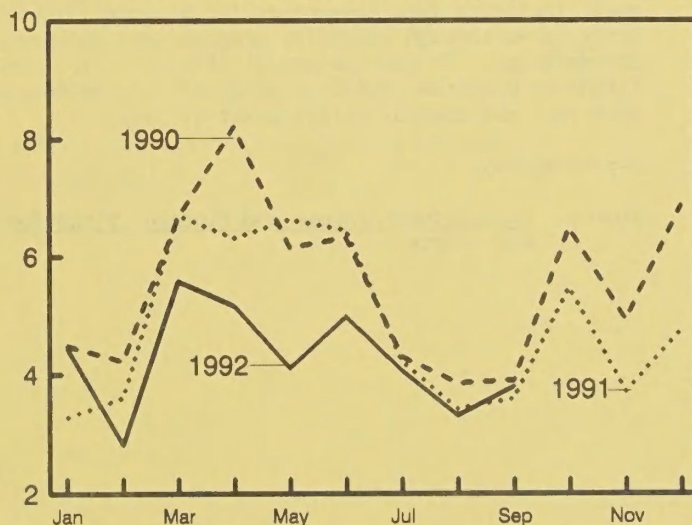
Contact Marlow Vesterby, RTD (202) 219-0422.

### Monthly Data Releases Planned

**RTD UPDATES**, published by the Resources and Technology Division, is a new series of monthly data highlights relating to agricultural resources, the environment, food safety, global change, and technology. Surveys of farm operators and others knowledgeable about changing agricultural resource conditions provide vital information to the RTD research program and are the source of these data highlights. **RTD UPDATES** gives readers recent data acquisitions, with only minimal interpretation or analysis. This quick release of data should enhance your analytical efforts and decisions. Please contact the individual listed in the text of **RTD UPDATES** on the availability and timing of additional information. Different resource and technology issues are featured each month, depending on availability of data.

## Farm Tractor Sales

1,000 units -- Wheel tractors 40 horsepower and above



Source: Equipment Manufacturers Institute.



Trends in U.S. farm investment expenditures and factors affecting farm investment demand

Item	1985	1986	1987	1988	1989	1990	1991P
Billion dollars							
Capital expenditures:							
Tractors	1.94	1.51	2.10	2.48	2.76	2.90	2.4
Other farm machinery	3.23	3.09	4.30	4.15	4.92	5.31	4.6
Total	5.17	4.60	6.40	6.63	7.68	8.21	7.0
Tractor and machinery repairs	3.44	3.43	3.54	3.59	3.96	3.76	3.8
Trucks and autos	1.76	1.71	2.17	2.34	2.50	2.51	2.3
Farm buildings 1/	2.26	2.14	2.60	2.35	2.45	2.67	2.6
Factors affecting demand:							
Interest expenses	18.6	17.1	15.0	14.7	14.7	14.5	14
Total production expenses	132.4	125.5	128.8	134.3	141.2	145.1	145
Outstanding farm debt 2/ 3/	187.9	166.6	153.7	148.5	146.0	145.1	147
Farm real estate assets 2/	657.0	613.0	658.6	682.2	703.9	711.4	706
Farm nonreal estate assets 2/	235.8	234.7	252.7	269.3	281.9	292.2	299
Agricultural exports 4/	31.2	26.3	27.9	35.3	39.6	40.2	38
Cash receipts	144.1	135.2	141.8	151.1	161.0	169.9	167
Net farm income	31.0	31.0	39.7	41.1	49.9	51.0	45
Net cash income	47.9	46.7	55.8	58.1	58.9	61.3	58
Direct government payments	7.7	11.8	16.7	14.5	10.9	9.3	8
Million acres							
Idled acres 5/	30.7	48.1	76.2	77.7	60.8	61.6	64.5
Percent							
Real prime rate 6/ 7/	6.9	5.7	5.0	5.4	6.5	5.7	4.4
Nominal farm machinery and equipment loan rate 7/	13.7	12.2	11.5	11.7	12.8	12.3	11.3
Real farm machinery and equipment loan rate 6/	9.6	9.4	8.0	8.4	8.4	8.0	7.2
Debt-asset ratio 8/	21.0	19.7	16.9	15.6	14.8	14.5	14.6

1/ Includes service buildings, structures, and land improvements. 2/ Calculated using nominal dollar balance sheet data, including farm households for December 31 of each year. 3/ Excludes CCC loans. 4/ Fiscal year. 5/ Includes acres idled through commodity programs and acres enrolled in the Conservation Reserve Program. 6/ Deflated by the GDP deflator. 7/ Average annual interest rate. From the quarterly sample survey of commercial banks: Agricultural Financial Databook, Board of Governors of the Federal Reserve System. 8/ Outstanding farm debt divided by the sum of farm real and nonreal estate asset values.

P=preliminary.

Source: Agricultural Income and Finance, Situation and Outlook Report, Econ. Res. Serv., U.S. Dept. Agr., and other ERS sources.

# Farm machinery exports and imports

Item	1990	1991	January-July	
			1991	1992
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	Million dollars			
Exports:				
Total	3,147	2,961	1,778	1,922
Tractors 1/	398	390	229	277
Tractors, used 1/	39	40	25	23
Combines, harvesting equip.	292	279	176	178
Balers	72	59	39	42
Mowers	42	46	33	36
Haying equipment	31	23	18	16
Plows 2/	10	11	6	6
Harrows and cultivators	13	16	9	11
Spraying equipment	55	89	50	60
Seeding and planting equip.	70	73	46	56
Livestock equipment	308	244	150	176
Equip. parts and components	1,816	1,691	997	1,041
Imports:				
Total	2,364	1,850	1,216	1,195
Tractors 1/	1,225	972	663	620
Tractors, used 3/	13	12		
Combines, harvesting equip.	72	57	40	37
Balers	10	8	6	4
Mowers	77	60	46	43
Haying equipment	14	14	12	5
Plows 2/	26	20	11	7
Harrows and cultivators	136	77	46	36
Spraying equipment	32	32	23	29
Seeding and planting equip.	63	38	24	26
Livestock equipment	103	82	52	51
Equip. parts and components	592	477	294	336

1/ Does not include track-laying tractors.

2/ Includes moldboard, disk, and other plows.

3/ January-July, unavailable.

Source: International Trade Commission and official statistics of the U.S. Department of Commerce.



Domestic farm machinery unit sales

			January-August		Change	
Machinery category	1990	1991	1991	1992	1990-91	1991-92
			Units		Percent	
Tractors:						
Two-wheel-drive--						
40-99 hp	38,400	33,900	24,406	23,198	-12	-5
Over 99 hp	22,800	20,100	13,565	9,523	-12	-30
Four-wheel-drive	5,100	4,100	2,623	1,645	-20	-37
All farm wheel tractors	66,300	58,100	40,594	34,366	-12	-15
Grain and forage						
harvesting equipment:						
Self-propelled combines	10,400	9,700	5,877	3,554	-7	-39

Source: Equipment Manufacturers Institute.

RTD UPDATES

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